LADDER AND LADDER SEATS

SAFETY PRECAUTIONS—GENERAL

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1. GENERAL

1.01 This section covers the precautionary measures necessary for the safe use of track supported and portable rolling ladders, stepladders, and ladder seats. It also includes the description of the Ladder Block ED-99543-70 and its use on track supported rolling ladders not equipped with a brake.

1.02 This section is being revised to include information on: Reaching limitations when working from ladders, position of employee's feet when working on a rolling ladder, illustrations on ascending onto a ladder seat, maximum working heights when working from a portable ladder, reference to the KS-21054 Pulpit Ladder, and the KS-21415 Rolling Platform Ladder.

1.03 Since this reissue is a general revision, arrows ordinarily used to indicate changes have been omitted.

2. LADDER PRECAUTIONS—GENERAL

2.01 Do not use a defective ladder or ladder supported by a defective track.

2.02 Do not leave tools, materials, and apparatus on unattended ladders unless securely fastened. When these items are no longer required, they should be cleared from the ladder.

2.03 Do not throw tools and materials from the floor level to an employee on the ladder or drop them from a ladder to an employee on the floor.

2.04 Do not at any time use nearby equipment, frames, racks, or other structures to assist in ascending, descending, or changing position on ladders.

2.05 Do not climb frames or stand on motors, equipment, or other objects that are not designed for that purpose. Use a ladder, bench, or stool, whichever is appropriate.

2.06 Do not stand with one foot on the ladder and the other foot resting on equipment, frames, or other structures.

2.07 Do not step from one ladder to another.

2.08 Do not use wax on ladder steps or handrails.

2.09 Only one employee at a time shall occupy a ladder. An exception may be made in the case of portable rolling ladders and stepladders of the so-called A-type with steps on either side. These may be occupied by two employees provided there is one on each side. A portable rolling ladder must be blocked if a self-locking arrangement is not provided.

2.10 Painted ladders should not be used since paint may hide possible defects.

2.11 Do not overreach or lean to the side so far that loss of footing or balance may occur. The center of the chest should not extend beyond the side rails.

2.12 Place ladders so as to gain safe and easy access to the work at hand.

2.13 Always face the ladder when ascending or descending. Use the handrail and ascend or descend one step at a time.

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2.14 Rubber-heeled shoes should be worn in preference to shoes with leather heels.

2.15 Never lift weight of body from ladder by grasping overhead ironwork. This act, when working from a ladder equipped with a brake, will release the brake.

2.16 When moving a ladder in close proximity to an occupied ladder, take care to avoid striking an employee on the stationary ladder.

2.17 Do not jump or swing on or off a ladder.

2.18 In descending a ladder, make certain that the last step has been reached before stepping to the floor.

2.19 Whenever a ladder is used when applying lubricants or other material of similar nature, inspect the ladder during and after use to make certain that no such substance has been spilled on the steps.

2.20 Do not use rolling ladders as scaffold supports unless absolutely necessary. If it is absolutely necessary to use rolling ladders for this purpose, they shall be securely lashed to a strong immovable object to prevent shifting.

2.21 Whenever the KS-21054 Pulpit Ladder is used, the latching device shall be secured to the frame before climbing the ladder.

2.22 Perform periodic tests and inspections shown in Section 065-105-501.

3. TRACK SUPPORTED LADDERS

3.01 Before moving a ladder, make certain that no employee or equipment is on or below the ladder.

3.02 Move a ladder slowly and evenly to avoid ramming the ladder stops on the track.

3.03 Do not ascend or descend a moving ladder.

3.04 When ascending a ladder, guard against striking one's head against the ladder track or other overhead metal framework.

3.05 Do not use the brake rope as a means to ensure stability except when it is necessary to hold the brake rope while moving the ladder.

3.06 Do not mount platform-type rolling ladders from the rear.

3.07 The rolling ladder shall be positioned so an employee can work in a vertical position. If the ladder position requires the workman to reach in order to work on the equipment, the ladder shall be repositioned.

3.08 Do not move a rolling ladder while aloft except to adjust it to the best position for the work operation and only if the distance to be moved does not exceed a foot or so in either direction.

3.09 To move a rolling ladder (not equipped with a brake) while aloft, grasp the handrail with one hand and, using the other hand on the superstructure, push or pull the ladder slowly and evenly in the desired direction. If the ladder is equipped with a brake, grasp the brake rope instead of the handrail, pull down on the brake rope, hold it so that the brake is released, and then move the ladder as outlined above. While holding the brake rope, the arm may be braced against the side rail or step of the ladder to ensure stability.

3.10 When working on a rolling ladder not equipped with a seat, the employee should work in a well-balanced position with each foot securely placed on a step.

3.11 Do not leave unattended ladders across aisles.

3.12 Do not climb from a rolling ladder to the superstructure or other elevated points unless the ladder is held securely by another employee.

3.13 When working on a ladder that extends partly into an aisle, suitable measures, such as blocking off the area, shall be used to warn passersby that there is someone aloft.

3.14 Before descending a rolling ladder, make certain that there is no other person or object on the steps below.

3.15 When stepping from a ladder to the floor, proper footing, with both feet on the floor, should be assured before letting go of the handrail.

Do not push the ladder away while stepping to the floor. Turning one's body to move in the direction of travel when stepping to the floor level can result in a strain or sprain.

3.16 When it is necessary to move a ladder across an aisle intersection, exercise extreme care to prevent striking any passerby.

3.17 To prevent bending or breaking hanger rods, do not mount a ladder which has been moved sideways from its normal position more than 12 inches at the wheels.

4. LADDER BLOCK

4.01 The Ladder Block (Fig. 1) is a wood block approximately 10 inches long, 3-1/4 inches wide, and 1-5/8 inches high. A V-shaped depression in the top accepts the wheel of the track supported rolling ladder. It is used to prevent movement of rolling ladders not equipped with brakes.

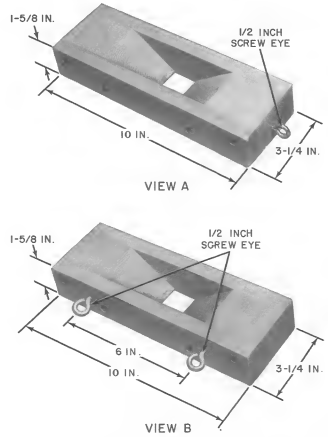

Fig. 1—Ladder Block—ED-99543-70

4.02 The block is shown in View A, Fig. 1. It comes equipped with a single screw eye so that it can be hung from a hook attached to the bottom center rear of the second step of a rolling ladder whenever the block is not used as shown in View A, Fig. 2.

4.03 As an alternate, the block can be modified with two screw eyes as shown in View B, Fig. 1, and when not in use can be attached to the bottom rear of the second step as shown in View B, Fig. 2.

4.04 When operations listed in 4.05 are performed from a track supported ladder not equipped with brakes, the ladder block is to be placed under one wheel (see Fig. 3).

4.05 On ladders not equipped with a self-locking arrangement, the ladder block shall be used when:

(a) Using a ladder seat.

(b) Working in one location for extended periods of time.

(c) Performing heavy work (ie, removing switches, placing switches, or using both hands to perform tests, etc).

(d) The foot of the ladder extends across an aisle.

(e) Using heavy equipment such as a test set, camera, etc, on the ladder.

(f) Working at, or near, the top of the ladder.

(g) There is any other possibility that the ladder may be struck by an object or passerby while anyone is aloft.

4.06 Maximum braking effect is secured by placing it under the wheel nearest the equipment on which work is being done.

5. PORTABLE ROLLING LADDERS (INCLUDING PLATFORM TYPE) AND STEPLADDERS

5.01 Do not use any type of portable rolling ladders or stepladders as a straight ladder.

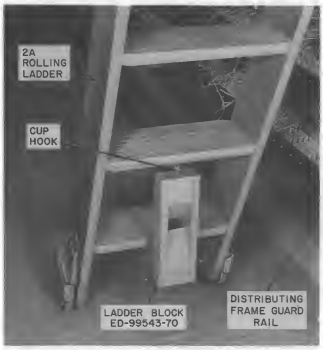

Fig. 2—Ladder Block in Place Under Ladder When not in Use

Fig. 3—Ladder Block in Place Under Track Supported Ladder

5.02 Before mounting portable rolling ladders (folding type) or stepladders, check that the spreaders are fully extended and locked.

5.03 Do not mount a portable rolling ladder from the rear (nonfolding) or any stepladder that is designed to be mounted from one side only.

5.04 When ascending or descending a ladder, face the ladder, grasp the side rail firmly and ascend or descend one step at a time.

5.05 The ladder shall be positioned so an employee can work from the ladder without extending the shoulder one foot beyond either side rail of the ladder.

5.06 A ladder of sufficient length shall be used so that work can be performed while standing no higher than two steps from the top of the ladder (see Fig. 4). Except for ladders under 4 feet in which case you may stand on the top step, not the platform.

Exception: The KS-21054 Pulpit Ladder and the KS-21415 Rolling Platform Ladder have a work platform that affords a sturdy, safe surface from which to work.

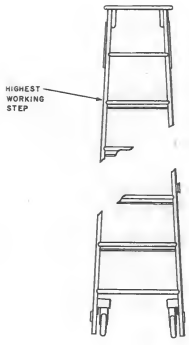

Fig. 4—Portable Rolling Ladder Four Feet or Over

5.07 Do not place boxes or similar objects on ladders, nor ladders on boxes or similar objects, in order to gain additional height.

5.08 Do not attempt to shift the position of a ladder while on it.

5.09 When folding a ladder, care should be exercised to avoid pinching the fingers in the spreader braces.

5.10 When it is necessary to place the ladder in a doorway, the door shall be fastened in an open position, closed and blocked, barricaded, or guarded by another person.

5.11 When carrying a ladder from one place to another, guard against striking it against ceilings, globes, lighting fixtures, equipment, or other objects. When passing through doorways, make certain that no one is coming from the opposite direction. If necessary, have another person open doors and assist in going around blind corners.

5.12 When ladders are not in use, place them in their assigned locations in accordance with local instructions.

5.13 On portable rolling ladders which are equipped with ropes to assist in folding the ladder, face the ladder, grasp the rope just above the spreader, and pull toward the body.

5.14 Rolling Platform Ladders with wire reels (KS-21415) should be positioned so wire is drawn on the side adjacent to the frame.

5.15 The folding step on platform ladders, so equipped, should be in the upward position except when in use.

5.16 On Rolling Platform Ladders with reels, excess wire should be recoiled after work is completed.

5.17 Rolling Platform Ladders should be positioned parallel to the frame when occupied.

6. LADDER SEATS

6.01 Use ladder seats on track supported ladders only.

6.02 Do not use a defective ladder seat. Inspect wooden seats frequently for loose nuts and screws, longitudinal cracks, and splits.

6.03 Do not carry tools or equipment in the tool compartment of a ladder seat.

6.04 Avoid contacting fuse panels, wiring, or equipment while transporting and placing ladder seats.

6.05 When ascending or descending a ladder and carrying a ladder seat in one hand, place the other hand on the handrail and ascend or descend the ladder one step at a time.

6.06 Before placing a metal ladder seat on a ladder, check that the lock handle is in the released position.

6.07 Metal ladder seats shall not be mounted on the ladder so that the seat causes interference with the trolley-type appliance outlet. Failure to observe this may result in damages to the outlet or the ladder locking mechanism.

6.08 Do not stand on ladder seats.

6.09 Tools, equipment, and materials shall not be left on unattended ladder seats unless fastened securely.

6.10 Remove all tools and equipment from ladder seat and ladder before removing the seat.

6.11 Remove the ladder seat as soon as it is no longer required.

6.12 When ladder seats are not in use, place them in their assigned locations in accordance with local instructions.

6.13 Perform periodic tests and inspection in accordance with Section 065-105-501.

Wooden Ladder Seats

6.14 A wooden ladder seat is placed on a ladder in the following manner:

(a) Place seat on step with hooks extending over and beyond step.

(b) Tilt the ladder seat slightly upward at outer end, pull forward until hooks are fully engaged at rear of the step, and then lower the seat until footrest is against next lower step.

6.15 To remove a wooden ladder seat from a ladder, reverse the procedure in 6.14.

Metal Ladder Seats

6.16 A metal ladder seat KS-5173-02 (Fig. 5) is placed on a ladder in the following manner:

(a) Tilt seat end slightly upward and place tool box between desired steps of ladder.

(b) Guide ladder seat toward ladder until lip at tool box end is slightly to rear of upper step and bottom of ladder seat rests on a lower step.

(c) Slide bottom of ladder seat to rear of lower step, checking that the lip at tool box end comes to rest behind upper step as locking clamp slips into place over rear edge of lower step.

(d) Operate lock handle to secure ladder seat to lower step by means of locking clamp.

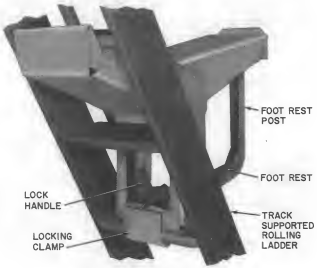

Fig. 5—KS-5173-02 Ladder Seat in Place on Track Supported Rolling Ladder

6.17 A metal ladder seat is removed from a ladder in the following manner:

(a) Release lock handle.

(b) Disengage locking clamp by operating lock handle.

(c) With lock handle in release position, slide bottom of ladder seat out from ladder.

(d) Tilt seat end up slightly and tool box end down until lip clears rear of upper step and then draw seat clear from ladder.

All Ladder Seats

6.18 Before placing body weight on a seat, check that seat is firmly and securely in place.

Caution: On some earlier ladders, the dimensions of the steps are such that the seat can be engaged with the step and have the appearance of being secure, but the locking mechanism will not function properly to clamp the seat in position. Do not use the metal ladder seat under

such conditions due to possible accident hazards.

6.19 Either of the methods described below may be used to mount and dismount ladder seats. The method which offers the maximum ease to the individual should be used.

(a) ***First Method (Fig. 6):*** Ascend the ladder to the second step below the footrest of the ladder seat. With one hand grasping the handrail and the other hand grasping the side rail of the ladder, place one foot on the step below the footrest and step up with the other foot to straddle the ladder seat. To get into working position, swing one leg up and over the seat while still grasping the handrail or side rail with one hand, turn the body toward the work area. Place both feet on the footrest. To dismount from the seat, reverse the above procedure.

(b) ***Second Method (Fig. 7):*** In approaching the ladder seat, ascend the ladder on the side to be faced when working on the equipment. Place one foot on the step below the footrest which will position the hips slightly above the ladder seat. In stepping up with the other foot, turn the body to face the equipment. Sit down on the seat and place both feet on the footrest. Care should be exercised in turning so that the feet do not slip off the ladder step. To dismount from the seat, reverse the above procedure. During the entire procedure, a firm grip must be maintained on the handrail or the side rail of the ladder as the ladder may be inclined to tilt slightly.

Note: In either of the above methods, care should be exercised not to damage the equipment with the feet and to guard against striking the head against the ladder track or other overhead metal framework.

(A)

(B)

(C)

(D)

Fig. 6—Mounting and Dismounting Ladder Seats—First Method

(A)

(B)

(C)

Fig. 7—Mounting and Dismounting Ladder Seats — Second Method